

MARINE CORPS WARFIGHTING LABORATORY

The Modular Wearable Computer (MOWC) will be a rugged, lightweight, modular system designed to provide monitoring, command & control, and system status for three separate small unit remote scouting system technologies. The MOWC will provide a common control system for the Dragon Eye Unmanned Aerial Vehicle, Dragon Runner Unmanned Ground Vehicle, and Small Unit Sensor System (SUSS) Unattended Ground Sensor.

Background:

The Marine Corps Warfighting Lab recognizes that tactical units need an organic suite of unmanned low-risk system capabilities to conduct Reconnaissance Surveillance, Target Acquisition (RSTA). The MOWC will assist this mission by providing real-time RSTA data, increasing the using unit's overall situational awareness. This will be executed by an organic suite of remote sensors, controlled and monitored from one central MOWC. This coverage will provide observational data of both confined and distant areas where human access is impractical or unsustainable, mitigating risk to the Marines normally carrying out these missions. Symbionics Inc, Chantilly, VA, with cooperation from Icuti, Rochester, NY, AeroVironment Inc., Simi Valley, CA and Carnegie Mellon University, Pittsburgh, PA, is currently developing MOWC.

Description:

MOWC will be a rugged, lightweight, modular control system to be worn or integrated into a Marines' uniform or equipment. It will interface with existing Dragon Eye, Dragon Runner, and SUSS radio telemetry and radio frequency hardware, enabling the MOWC to command and control all three remote sensor systems from one common control system. A complete MOWC

MODULAR WEARABLE COMPUTER *fact sheet*



system will consist of one CPU, one battery back, one Heads Up Display, and one interface hub. The interface hub features a plug and play display /controller that allows the operator to select and fully control any of the three unmanned sensors from the common control platform. The MOWC system will be less than 6 lbs.

Deliverable Product: Three prototype MOWCs will be used for initial concept validation and experimentation in fiscal year 2005 & 2006.

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3255 MEYERS AVENUE
QUANTICO, VA 22134
WWW.MCWL.QUANTICO.USMC.MIL